## WHAT IS CLAIMED IS:

- 1 1. A cut stone, comprising:
- 2 a pavilion portion having a culet;
- 3 a crown portion;
- a girdle separating said pavilion portion from said crown portion;
- 5 a plurality of pavilion main facets extending between said girdle and said culet; and
- 6 three lower girdle facets between each adjacent pair of said pavilion main facets,
- 7 said lower girdle facets each having a top side along said girdle and a lower vertex
- 8 extending toward said culet.
- 1 2. The stone of claim 1, wherein said crown has a table, a plurality of star facets
- 2 encircling said table, a bezel facet between adjacent star facets and said girdle, and three
- 3 upper girdle facets between adjacent bezel facets, said upper girdle facets each having a
- 4 lower side along said girdle and an upper common vertex extending toward said table.
- 1 3. A cut stone, comprising:
- 2 a pavilion portion having a culet;
- a crown portion;
- 4 a girdle separating said pavilion portion from said crown portion; and
- 5 a plurality of pavilion main facets extending from near said culet toward said girdle;
- 6 wherein said pavilion main facets vary in width.
- 1 4. The stone of claim 3, wherein said pavilion main facets alternate in a clockwise
- 2 direction between thick pavilion main facets and thin pavilion main facets.
- 1 5. The stone of claim 4, wherein said thick pavilion main facets are at least about 30
- 2 percent thicker than said thin pavilion main facets and wherein said thick pavilion main
- facets are at most about 60 percent thicker than said thin pavilion main facets.
- 1 6. The stone of claim 3, further comprising a table on said crown;
- wherein:

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- 3 said table has a plurality of sides; and 4 said plurality of pavilion main facets equals the number of sides of said table. 7. 1 The stone of claim 3, further comprising: 2 a table on said crown; and 3 a plurality of bezel facets on said crown, said bezel facets each having an upper vertex at said table and a lower vertex at said girdle; 4 5 wherein said pavilion main facets terminate in an upper vertex at said girdle in 6 substantial alignment with said lower vertex of a corresponding bezel facet of said crown. 1 8. A cut stone, comprising: 2 a pavilion portion having a culet; 3 a crown portion; 4 a girdle separating said pavilion portion from said crown portion; 5 a plurality of pavilion main facets extending between said girdle and said culet; and 6 three lower girdle facets between each adjacent pair of said pavilion main facets; 7 wherein at least one of said lower girdle facets is rotated so that said at least one 8 lower girdle facet is not tangent to a circumference about said stone. 1 9. The stone of claim 8, wherein a middle of said three lower girdle facets is said 2 rotated lower girdle facet. 1 10. A cut stone, comprising: 2 a pavilion portion having a culet; 3 a crown portion having a table with a predetermined number of sides; a girdle separating said pavilion portion from said crown portion; and 4
- 1 11. The stone of claim 10, further comprising:

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2 a plurality of pavilion main facets extending between said culet and said girdle; and

bottom side along said girdle and an upper vertex extending toward said table.

three upper girdle facets per side of said table, said upper girdle facets each having a

3		three lower girdle facets per side of said table on said pavilion portion between	
4	adjac	adjacent pairs of pavilion main facets;	
5		wherein said lower girdle facets each have a top side along said girdle and a lower	
6	vertex extending toward said culet.		
1	12.	A method for cutting a stone, said method comprising:	
2		forming a pavilion portion having a culet;	
3		forming a crown portion having a table with a predetermined number of sides;	
4		forming a girdle separating said pavilion portion and said crown portion; and	
5		forming three upper girdle facets per side of said table, said upper girdle facets each	
6	havin	having a bottom side along said girdle and an upper vertex extending toward said table.	
1	13.	The method of claim 12, further comprising:	
2	15.	forming a plurality of pavilion main facets on said pavilion extending between said	
3	culet and said girdle; and		
4	54150	forming three lower girdle facets on said pavilion portion between adjacent pairs of	
5	pavilion main facets, said three lower girdle facets each having an upper side along said		
6	girdle and a vertex extending downward toward said culet.		
1	14.	A mathed for outting a stone said mathed commissings	
2	14.	A method for cutting a stone, said method comprising: forming a crown portion;	
3		forming a pavilion portion;	
<i>3</i> 4		forming a girdle separating said crown portion from said pavilion portion;	
5		forming a plurality of pavilion main facets on said pavilion portion between said	
6	culet and said girdle; and		
7	cuict	forming three lower girdle facets between adjacent pavilion main facets on said	
8	navili	on portion, said three lower girdle facets each having an upper side along said girdle	
9	_	and a lower vertex extending toward said culet.	
,	una a	tower vertex extending toward said earer.	
1	15.	The method of claim 14, further comprising:	
2		forming a table on said crown with a plurality of sides;	
3		forming a star facet extending from each side of said table;	
4		forming bezel facets between said star facets, said bezel facets each extending from 15 CA1 - 345857.1	

- 5 a lower vertex at said girdle to an upper vertex at said table; and
- 6 forming three upper girdle facets on said crown portion, said upper girdle facets
- 7 extending to a common vertex on an upper portion of said crown and each having a lower
- 8 side along said girdle
- 1 16. A method for cutting a stone, said method comprising:
- 2 forming a crown portion;
- 3 forming a pavilion portion including a culet;
- 4 forming a girdle separating said crown portion from said pavilion portion; and
- forming a plurality of pavilion main facets on said pavilion portion, said pavilion
- 6 main facets varying in thickness.
- 1 17. The method of claim 16, further comprising forming said pavilion main facets with
- 2 thicknesses alternating between thick pavilion main facets and thin pavilion main facets.
- 1 18. The method of claim 17, wherein said thick pavilion main facets are at least about
- 2 30 percent thicker than said thin pavilion main facets and at most about 60 percent thicker
- 3 than said thin pavilion main facets.
- 1 19. A method for cutting a stone, said method comprising:
- 2 forming a crown portion;
- 3 forming a pavilion portion including a culet;
- 4 forming a girdle separating said crown portion from said pavilion portion; and
- forming a lower girdle facet on said pavilion portion rotated not to be tangent to a
- 6 general circumference of said stone.
- 1 20. The method of claim 19, further comprising forming multiple lower girdle facets on
- 2 said pavilion portion rotated to not be tangent to the general circumference of said stone.